Reviewer's report

Title: Comparison of the Adult Strabismus Quality of Life Questionnaire (AS-20) with the Amblyopia and Strabismus Questionnaire (ASQE) among adults with strabismus in China

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Reviewer: Brendan Barrett

Reviewer's report:

The authors have added results relating to whether or not the participants had amblyopia. This is useful (but see below). There are more details about methodology. The results section is better structured and the discussion is less repetitive. Hence, most of my concerns have been addressed. However, I have a number of residual concerns which I believe the authors should consider. In particular the quality of the English in places is still well below par (In places, I could not understand the point that was being made).

Points for further consideration:

- There is still an issue with technical terms not being properly described. Since this journal is a general science journal, all technical terms (like the ones I mentioned in my original review) need to be clearly defined and explained. The authors have made some progress on this point but in my view, not enough. One example: Cronbach’s alpha is still not well explained. Please state in words what this term means so that a general readership can understand. Later, the authors talk about values of 0.90 or greater having ‘excellent internal consistency’ versus say values of 0.70 or less which have ‘questionable internal consistency’ but they never state what they mean by internal consistency!

- Methods (Patients). It is stated that both control groups were ‘orthophoric’. Do the authors mean orthophoric or orthotropic? Finding 100 orthophoric individuals would be extremely difficult.

- The terms ‘patient’ and ‘participants’ continue to be used interchangeably.

- P-values continue to be missing in some cases. For example, in results (demographic characteristics, last sentence) it says .. “..yet not is ASQE”. P-values are quoted earlier in the sentence for AS-20, so they should be reported also for ASQE. The same comment applies to the third sentence in the next section (Clinical features and HRQoL).

- In the 4th sentence of Results (Clinical features and HRQoL), the words “..than those without diplopia…” should be moved or deleted as the sentence does not make sense in its current form. Later in that sentence, “...except for the cosmetic subscale, p=0.021)”. I don’t understand. If p=0.021 then isn’t the cosmetic subscale ALSO showing a difference between participants with and with diplopia?? . There continue to be many sentences like this which are difficult to follow so extensive proof reading is required.
-Results (Floor/ceiling effects). I found this new paragraph and the associated Table to be very difficult to understand. It doesn’t say precisely what is meant by floor and ceiling effects, nor is it made clear which questionnaire is being referred to. This paragraph needs to be completely re-written as it adds very little at present.

-Results (Clinical Features and HRQoL). The authors have now included amblyopia in their consideration of the results. I would like to ask whether the authors could include a new bar-chart figure (Figure 2) that shows results for all adult strabismic compared to those with (i) only strabismus, (ii) amblyopia and strabismus, (iii) all participants without diplopia (irrespective of amblyopia) and (iv) participants with diplopia (again irrespective of amblyopia). In such a large sample as this, I think this would be a really useful addition because it would allow the reader to separate the effects of strabismus on HRQoL from those associated with amblyopia and diplopia.

- Regarding the results presented in Table 4, can the authors perform a similar analysis according to whether or not participants have amblyopia? i.e. add extra columns to Table 4 that allow a similar comparison of scores for participants with and without amblyopia. I think this would complete the picture and be a very useful addition to the paper.

-Discussion, 4th paragraph. Reference to Felius et al. [15] is incorrect as the Felius et al. citation is [18] in the reference list. Please check all references and cross-check.

-The final sentence of the manuscript suggests that future work should look at which of the two instruments is more “patient-friendly and appropriate to administrate”. Based upon this sample of over 300 participants I would have thought they could make important comments on these points. Approximately how long did each questionnaire take for participants to complete? Was feedback sought from participants about which they preferred? Did participants have (or appear to have) difficulties with any of the questions on either questionnaire?

-As mentioned, the quality of the English is very poor in some places and there continue to be many typographical errors. Once the final changes are made, the manuscript will require thorough proof reading by a native English speaker.